## REFLECTIONS ON RESEARCH<sup>1</sup>

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As experts dedicated to improving human understanding of our relationship to water, members of the International Association for Great Lakes Research have been at the cutting edge of many issues affecting large lakes. The efforts of researchers on the North American Great Lakes have been particularly important to the 37 million North Americans who live in the basin, but have also affected those who dwell near other large lakes of the world if not the entire global community.

Because of their physical and biological characteristics, the Great Lakes have served to concentrate and to magnify pollution problems before they become recognized on a national scale. For example, it was early work on Lake St. Clair that brought to light the problems of mercury contamination across the nation. It was the failure of DDT levels in Lake Michigan fish to rapidly decline that led to the conclusion that another substance was being picked up by the analytical technique along with DDT. That substance, of course, turned out to be polychlorinated biphenyl (PCB). So as scientific research has increased our understanding of large lake systems, it has also contributed to an understanding of mankind's role in the world.

To responsibly manage the vast ecosystem that is the North American Great Lakes, government and decision makers need an understanding of the natural laws governing that ecosystem and an appreciation of the consequences of contemplated actions.

In 1982 Great lakes research, according to the International Joint Commission, cost approximately \$23.3 million, or \$0.99 per person relying on the Great Lakes for drinking water. Looked at another way, the research cost 2/100's of a cent per gallon, a small but important investment in our region's future.

However, during the past several years we have been witness to a major retreat on the part of the U.S. government in its commitment to our precious resource. Gone is the Great Lakes Basin Commission which provided a forum for planning for the long-term use of our unique waterway. Vastly reduced are special studies and activities of the Great Lakes Program Office, the Sea Grant Program, the Coastal Zone Management Program, the Large Lakes Research Station, and special efforts of the National Marine Fisheries Service. In justifying what are called "decreases resulting from completion of activities," the U.S. Environmental Protection Agency's 1984 budget summary says the reduction reflects "the completion of Great Lakes Research."

For the last several years there has been a recurring battle for the survival of the U.S. Environmental Protection Agency's Large Lakes Research Station and the National Oceanic and Atmospheric Administration's Great Lakes Environmental Research Laboratory in Michigan and a host of other programs which are dependent on these agencies. Uncertainty has meant that prominent scientists have left and there is diminished support for graduate students. Considerable time is being spent on survival rather than on addressing problems.

The attitude of some is that the Great Lakes should be treated as just another body of fresh water in the nation; that research in generic programs can provide the answers we need; and that it is no longer important to treat the North American Great Lakes as something "special." In my judgement, that attitude is akin to saying that the Mona Lisa is just another painting, the Eiffel Tower just another structure, or an eagle just another bird. The simple truth is that in the face of our international obligations, in the face of economic dependence of the region surrounding the lakes, and in the face of their increasing importance to our future, we cannot afford a retreat from our research commitment to the lakes.

Excerpts from remarks made to the International Association for Great Lakes Research at the 26th Annual Conference on Great Lakes Research, Oswego, N.Y.